

IMMUNOLOGICAL MODIFICATIONS ASSOCIATED WITH RADIOTHERAPY OF LARYNX CANCERS : LONGITUDINAL ANALYSIS AND CORRELATIONS WITH THE COURSE OF DISEASE.

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Radiotherapy is known to induce long-lasting immunosuppressive effects. Possible detrimental consequences on cancer prognosis have been emphasized but the true meaning of these modifications is still controversial.

A study is going on to assess the immune capacity of larynx cancer patients treated by irradiation. Tests are performed prior and during radiotherapy and repeated at 3 months intervals. 85 patients have been enrolled up to now. Cutaneous hypersensitivity reactions to a battery of 7 recall antigens are evaluated with Merieux Multitest. Peripheral blood lymphocytes, T and B cells populations, helper and suppressor subgroups are measured. Recently, production levels of TNF, IL2 and  $\gamma$  IFN have been routinely assessed by radioimmunological methods.

At time of diagnosis, larynx cancer patients present skin reactivity reduced by half as compared to healthy controls of similar age and sex. Significant lower levels of lymphocytes subpopulations are also observed. Radiotherapy markedly alters the immune capacity. At variance with published works, our longitudinal studies show that effects are not univocal. In addition to a group of immunosuppressed patients, subsets are identified where immune functions are maintained or enhanced as compared to pretherapeutic values. Correlations will be presented with clinical situation (tumour stage and disease-free survival).

Our hope is that immunological monitoring might be useful in selecting patients with bad prognosis and in pointing out evolutive events such as recurrence or metastasis while still infraclinic.